



Printed Pages : 3

TIT-201

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1306

Roll No.

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B.Tech.

(SEM. II) EXAMINATION, 2007-08

INFORMATION TECHNOLOGY

Time : 3 Hours]

[Total Marks : 100

Note : Attempt **all** questions.

1 Answer any **four** parts :

4×5=20

- (a) Define the term information representation. How it is represented in digital media ?
- (b) What do you mean by quality of information ? Explain.
- (c) Convert the following binary numbers to decimal numbers :
 - (i) 101011.11 (ii) 111011.10
- (d) Differentiate between Huffman-tree and Shannon-Fano tree, which is more effective and why ?
- (e) Define the term data compression. Why it is required ?
- (f) Define the following :
 - (i) JPEG (ii) MHEG

2 Answer any **four** parts :

4×5=20

- (a) Draw a block diagram to illustrate the basic organization of a computer system and explain the functions of various units.
- (b) A computer has no intelligence of its own. Discuss.

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[Contd...

- (c) Machine language programs written for one computer will generally not run on another computer with a different CPU. Why ?
- (d) Differentiate between static RAM and Dynamic RAM.
- (e) What is an interpreter ? How does it differ from a compiler ?
- (f) What is a linker ? Why it is required.

3 Answer any **two** parts : 10×2=20

- (a) (i) Draw the logic circuit for the following expressions :

$$A \cdot \bar{B} \cdot C \cdot D + A \cdot B \cdot C \cdot D + \overline{A \cdot B \cdot C \cdot D}$$

- (ii) What are registers ? What are used for ? Draw a schematic diagram of 4-bit register.
- (b) (i) Explain the terms "bandwidth" and "band" with suitable example.
- (ii) What do you understand by modulation and demodulation ?
- (c) (i) Define the following terms – Routa and Gateway.
- (ii) Describe the OSI model of network architecture with the functions of each layer.

4 Attempt any **two** parts : 10×2=20

- (a) (i) List out three main characteristics features of the internet that may be used to define it.
- (ii) What do you mean by TCP / IP ? Explain.
- (b) Define the following with example :
 - (i) Hypertext Make up language.



- (ii) Public key and Private key
- (iii) ISP
- (iv) Electronic payment system.
- (c) Define E-Commerce. Give in detail the basic infrastructure for E-Commerce.

5 Attempt any **two** parts : **10×2=20**

- (a) (i) Differentiate between internal and external commands of MS-DOS, with examples.
- (ii) Name any four popular O.S. and describe the main feature of any one of them.
- (b) (i) What do you mean by word processing ? List important features, which makes MS-Word suitable for word processing applications.
- (ii) What are macros in the MS-Word ? What does they do ? Explain.
- (c) Define the following :
 - (i) Database Management System
 - (ii) BR NET
 - (iii) IT application in education
 - (iv) FoxPro commands to create a database.

